STATE OF TENNESSEE TREASURY DEPARTMENT CLASS SPECIFICATION

<u>Class Title</u> <u>Salary Grade/Range</u>

Treasury Programmer Analyst 26

Functional Title

Concord Database Administrator

Employee(s) Position Number

Effective Date Non-Civil Service Division

April 1, 2012 Information Systems

SUMMARY

Under the general supervision of the Development Manager, is responsible for developing and implementing methods, techniques, and standards for the effective management of data resources; and performs related work as required.

DISTINGUISHING FEATURES

An employee in this class reviews data models and database designs; monitors, evaluates and recommends changes affecting database performance; and implements new of revised methods, techniques, and standards for data and database management.

EXAMPLES OF DUTIES AND RESPONSIBILITIES

- 1. Designs and reviews database systems; determines data resource needs; reviews data structures and physical database objects designed by staff; evaluates data model deliverables for conformity to standards, procedures, guidelines and user requirements; reviews logical databases to determine design changes needed; talks with agency administrators, end users and other project team members to coordinate the implementation processes for new or revised database system designs.
- 2. Provides technical assistance to other personnel involved in computer applications development; answers questions from application development teams and describes techniques related to database management (e.g., structured query language, coding performance, security authorization, problem resolution); clarifies system and user requirements for vendors; writes procedures to control migration of database components; grants appropriate user privilege levels; instructs other programmers and analysts to make changes to programs which result in better database performance.

- 3. Plans, coordinates, and executes data conversion activities such as data mapping and data conversion programming to support data migrations between systems.
- 4. Write and troubleshoot SQL Code and design (stored procedures, functions, tables, views, triggers, indexes and constraints)
- 5. Monitors performance of application systems; identifies performance enhancements to application programs and databases; identifies causes of poor response and turnaround times in database systems; recommends application data access changes (e.g., adding indexes, moving data sets, changing system parameters); evaluates information gathered from users and other staff to establish minimum standards for services and determine impact of database changes on other systems; identifies service needs related to software and hardware improvements; makes recommendations to management concerning problems or issues in the database environment to ensure optimal performance and productivity of database systems.
- 6. Performs daily maintenance, tracking and documentation of production database systems; creates and schedules database specific jobs (e.g., image copy utility jobs, reorganization utility jobs, statistics collection utility jobs, backup utility jobs, database recovery jobs); uses database documentation and knowledge of the system to determine necessary actions to recover from problems or failures; identifies system characteristics that provide information for ongoing database documentation; coordinates the database maintenance and implementation activities with programming staff, vendors, agency users, and overall State data architecture.
- 7. Collaborates with other database administrators in the development and enforcement of standards, procedures, and guidelines and policies for data processing methods, techniques, and procedures to establish the operational framework in which database management systems are consistently and effectively utilized; reviews system requirements, or current needs, current State standards, procedures, and guidelines and Office of Information Resources policies to define techniques for monitoring and evaluating database performance; develops disaster recovery plans and test procedures; compares user activities and deliverables to standards, procedures, and guidelines to determine adherence; instructs users to correctly follow standards, procedures, and guidelines and correct any violations; identifies changes that need to be made in repository facility to meet current needs.
- 8. Identifies database software which can be used to solve existing problems or improve existing systems; researches and tests new products; evaluates and selects database software products which will enhance the performance and integration of data management tasks; writes computer programs which provide user-friendly interfaces and procedures to automate maintenance and reporting tasks associated with database facilities; reviews output and software documentation, monitors software packages, and talks to vendors and users to identify causes of errors in software packages (e.g., installation errors, exit code errors); instructs users in the use of database software to enhance database system usage, facilitate problem resolution, and maximize customer service; makes recommendations to management and purchasing units on viable vendor proposals based on the evaluation process.

- 9. Install Microsoft SQL Server 2005/2008 Enterprise software; apply Microsoft SQL Server 2005/2008 patches
- 10. Create, or support creation of, required reports and queries in response to business user needs.
- 11. Performs other related duties as assigned.

MINIMUM QUALIFICATIONS

Graduation from an accredited college or university with a B.S. in Information Systems, Computer Science, or related field.

Three years of professional level experience in the analysis, design, or programming of business information systems utilizing database management systems (e.g., SQL Server, Oracle, DB2) including at least one year of specialized experience that involved data modeling, database design/development, or performance monitoring and tuning of database management systems.

Specific technology certifications ideal, but not required.

Criminal background check and social security number trace is required for this position.

RECOMMENDED COMPETENCIES

- Analytical, problem-solving thinking
- Good interpersonal, written, and oral communication skills
- Experience working in teams and in a team environment that is process-oriented and deadline-driven
- Able to prioritize and execute tasks in a high-pressure environment
- SQL Server Database Administration experience
- Experience in database/application tuning
- Experience in troubleshooting and resolving database integrity issues, performance issues, blocking and deadlocking issues, replication issues, log shipping issues, connectivity issues, security issues, etc.
- Ability to detect and troubleshoot SQL Server related CPU, memory, I/O, disk space, and other resource contention issues
- Experience with Microsoft SQL Server 2005/2008, SQL Server Profiler, SQL Reporting Services, resolving application T-SQL related issues
- Experience with SSIS and SSAS
- Experience with Data analysis, data modeling, data warehouse
- Knowledge of Treasury and Retirement business functions and workflows a plus.